Sunken Costs and Desired Plans: Examining Different Types of Investments in Close Relationships

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Although the concept of investments in romantic relationships has featured prominently in close relationships research, there have been no empirical analyses of different types of investments and their possible differential predictive power regarding relationship state or fate. With data from five independent samples, the authors offer and examine investments that differ in terms of their timing (past vs. planned) and materiality (tangible vs. intangible). Cross-sectional and longitudinal tests of hypotheses regarding these investment types provide evidence for the utility of considering specific types of investments in predicting a variety of important relationship factors, including commitment, stability, and the impact of breakup on relationship partners. Intangible investments and planned investments were found to be particularly robust predictors of key relational states and outcomes.

Keywords: investments; commitment; relationship stability; close relationships

What makes a person stay in a romantic relationship? This seemingly simple question has been the focus of social psychological research for decades. Numerous theories and constructs have been offered concerning both initial interpersonal attraction and ongoing romantic relationship maintenance (e.g., Agnew, Arriaga, & Wilson, 2008; Altman & Becker, 1973; Arriaga, Agnew, Capezza, & Lehmler, 2008; Berscheid & Reis, 1998; Canary & Stafford, 1994; Clark, Mills, & Powell, 1986; Simpson, 1987). However, beyond broad theories and constructs, there have been fewer detailed attempts to examine specific factors that tend to keep romances intact. The major purpose of the present work is to examine intensively one factor known to promote relationship stability, investments, and to offer a new conceptualization of investments focusing on their timing and materiality.

Investments in Relationships

The concept of investments in a romantic relationship is a cornerstone of one of the most researched theories of relationship stability, Rusbult's (1980a, 1983) Investment Model. In this model, based on concepts from interdependence theory (Kelley & Thibaut, 1978; Rusbult, Arriaga, & Agnew, 2001; Thibaut & Kelley, 1959), the level of one's commitment to a relationship influences relationship stability. Commitment is the subjective state of dependence that individuals experience daily regarding their relationship (Agnew, Van Lange, Rusbult, & Langston, 1998). Commitment is hypothesized to be a function of three interrelated factors: (a) the level of satisfaction with the relationship (or the degree to which relationship outcomes are experienced as gratifying); (b) the quality of a relationship’s alternatives (or the perceived desirability of the best available alternative to the current relationship); and (c) the size of investments in the relationship. Investment size is defined as...
“the magnitude and importance of the resources that are attached to a relationship—resources that would decline in value or be lost if the relationship were to end” (Rusbult, Martz, & Agnew, 1998, p. 359). Thus, from this perspective, investments can be viewed as one type of barrier to ending a relationship—if the relationship were dissolved, partners would lose all the investments they had sunk into their partner and their relationship.

Extant research on the Investment Model has shown that it reliably predicts commitment level in a variety of relationship types and across a range of important moderators (see Le & Agnew, 2003, for meta-analytic support). For example, in the friendship realm, Rusbult (1980b) found that while satisfaction with friendships was a simple function of the rewards and costs associated with the relationship, commitment to friendships was best described by a combination of satisfaction, alternatives, and investments. Job commitment has also been predicted by a combination of rewards and costs (i.e., satisfaction), alternatives, and investment size (Farrell & Rusbult, 1981). Most research on the Investment Model, however, has focused on romantic relationships (e.g., Bui, Peplau, & Hill, 1996; Etcheverry & Agnew, 2004; Lehmiller & Agnew, 2006; Rusbult, 1983; Rusbult et al., 1998; Rusbult & Martz, 1995) and how investments predict romantic relationship functioning and duration over and above satisfaction level and quality of alternatives.

Types of Investment

According to Rusbult (1980a), investments can become “attached” to a relationship in two ways, resulting in two types of investments: extrinsic and intrinsic. Rusbult defines extrinsic investments as those that occur when previously extraneous interests are linked to current behavior. For example, an individual’s home and his current relationship may not have been initially associated. However, if he believes that dissolution of the relationship with his current partner would cause him to lose his home, commitment should be increased and the individual should be less likely to leave the relationship. (p. 174)

In contrast, “the intrinsic investment of resources such as time, emotional involvement, self-disclosures, money, and so on, should also increase commitment” (p. 174). Intrinsic investments are those resources directly put into the relationship that may affect the quality of the relationship itself (Rusbult & Martz, 1995).

Although the intrinsic-extrinsic distinction has been mentioned in many studies involving the Investment Model, no research to date has examined the possible differential predictive power of these two types of investments on relationship commitment or stability.

For example, Simpson (1987) suggested that intrinsic investments should characterize stable relationships; however, investments were only indirectly assessed using other constructs such as closeness and the sexual nature of the relationship. Furthermore, existing measures of investments do not attempt to separate these two types of investment (e.g., the Investment Model Scale by Rusbult et al., 1998).

One possible reason why the intrinsic-extrinsic distinction has not been examined in depth may be because the distinction between the two types is not always clear. Indeed, these types, as defined, are not necessarily mutually exclusive. That is, a specific investment may be seen as either type, depending on the dynamics of a given relationship. Consider, for example, children, an investment integral to many couples and one that may be central to decisions about maintaining or ending a relationship. For some couples, having children might be considered an intrinsic investment—one completed in the hopes of directly improving the relationship between partners. However, other couples may have children as a goal in and of itself, without the motive of affecting the quality of their relationship. Here, children might be considered an extrinsic investment—a resource tied to the relationship, but only indirectly.

Because of the potential ambiguities involved with the intrinsic-extrinsic distinction, we propose an alternate division of the investment construct that we believe makes sense theoretically, practically, and empirically. Specifically, we propose four types of investments that can be specified at any point in a given relationship: (a) past tangible, (b) past intangible, (c) planned tangible, and (d) planned intangible. Below, we describe how investments can differ based on their materiality and on when they occur (i.e., their timing).

Investment Materiality

Investments differ with respect to their material nature. Tangible investments are resources that physically exist and are either directly or indirectly tied to the relationship. Examples of tangible investments are objects the couple members purchase together, shared debts, and pets. Intangible investments, conversely, are resources without material being that are either directly or indirectly tied to the relationship. Examples of intangible investments include self-disclosures, effort put into the relationship, and time.

One might suspect that tangible investments are particularly effective in keeping people committed to a relationship. After all, material possessions tend to be a valued resource, and leaving them behind might be seen as especially difficult. However, several distinct research literatures emphasize the considerable psychological importance of nonmaterial versus material resources.
consistent with current views of the concept, past investments are those that have been sunk into the relationship and either currently exist or cannot be retrieved. In the extant literature, all investments have been considered to be of this type. However, planned investments also undeniably exist—investments that a person consciously intends to put into his or her relationship in the future. Although planned investments have not yet come to fruition, if the relationship were to end, these plans would be lost, in addition to any past investments.

Recent developments in the psychology of goals and in evolutionary psychology highlight the importance of considering future possibilities in current decision making and behavior. For example, Gollwitzer’s (1999) concept of implementation intentions emphasizes the theoretical and empirical advantages of elaborated plans that one develops to see one’s goals to fruition. Generally speaking, the more elaborated the plan, the more likely is goal completion. Furthermore, in describing altruism from an evolutionary perspective, Tooby and Cosmides (1996) highlight the importance of deciding in whom one chooses to invest. As they put it, “Individuals need to decide who they will invest in, and how much they will invest. Just as some economic investments are more attractive than others, some people should be more attractive as objects of investment than others” (p. 132).

Individuals with greater commitment to their romantic relationship are more likely to think in terms of the future of the relationship. For example, in their research on the progression of romantic relationships, King and Christensen (1983) found that a major step in a relationship is when “participants begin to project their relationship into the future and consider pursuing maximum levels of interdependence and commitment” (p. 676). Indeed, commitment itself has been defined as the individual’s desire or intent to continue the relationship (Arriaga & Agnew, 2001; Berscheid & Reis, 1998). When individuals are considering a future with their partner, they are likely to make plans regarding the investments they would like to see occur. Conversely, if an individual is not particularly committed to his or her partner, he or she is less likely to be thinking in terms of future plans with that partner. Moreover, unlike past investments that require time to accrue, planned investments can begin to form upon relationship initiation. Thus, we see them as particularly powerful predictors of commitment:

Hypothesis 2: Although past and planned investments will each be significantly associated with commitment, when tested simultaneously, planned investments will account for variation in commitment above and beyond past investments.
Investments, Relationship Dissolution, and Postrelationship Outcomes

In past research (e.g., Bui et al., 1996; Rusbult et al., 1998), relationship breakup or continuation has been found to be predicted by levels of commitment, satisfaction, alternatives, and investments. However, with respect to investments as a predictor of breakup, past research has largely considered measures of past intangible investments (e.g., Rusbult et al., 1998). Thus, our knowledge of investments as a predictor of breakup is limited to this type. Once types of investment are distinguished, it remains an open question as to whether specific types are particularly powerful prognosticators of relationship fate. Based on our literature review, in addition to past intangible investments, it is reasonable to conclude that relationship continuation should be predicted by levels of planned investments (tangible and intangible). Specifically,

**Hypothesis 3:** Relationships characterized by higher levels of planned investments at Time 1 will be significantly less likely to dissolve by Time 2 than will be those characterized by lower levels of such investments.

Moreover, even in the wake of a relationship breakup, those with higher levels of planned investments while the relationship was still intact should be more optimistic about the possibility of reuniting with their partner at some point in the future. These individuals may find it difficult to give up their unfulfilled plans for the future, hoping to ultimately achieve them by reuniting with their partner. In the same vein, they should also be less likely to form a new relationship following the breakup. Thus, among those whose relationship ended by Time 2:

**Hypothesis 4:** Higher levels of planned investments at Time 1 will be associated with greater perceived likelihood of reuniting with one’s partner in the future and with lower probability of being involved with a new partner by Time 2.

**Overview of Studies**

A preliminary study was conducted to obtain a pool of items to tap the investment-type distinctions described above. Study 1 provides results from confirmatory factor analyses to support the latent structure of investments hypothesized to underlie the item pool. Study 2 is a cross-sectional test of Hypotheses 1 and 2. Study 3 provides replication of the tests of Hypotheses 1 and 2 as well as a longitudinal test of Hypotheses 3 and 4.

**Preliminary Study**

As we wished to ensure that the specific example investments used in the main studies covered a range of investments seen as common and important, we conducted a preliminary study involving 69 undergraduates (30 males, 37 females, 2 unspecified) who were in a romantic relationship at the time of their participation in the study. These participants were asked to provide general open-ended examples of investments, following from a definition that we provided of the general concept of investments. Next, participants were provided with more specific definitions of tangible and intangible investments and asked to list additional examples given these definitions (see Appendix A for definitions).

Two independent raters then reviewed each participant’s responses. For each of the instructions (general, tangible, and intangible), each rater created a list of all examples offered as well as the frequency of each one. A review of the responses made it clear that participants had little trouble generating examples of investments in general or as either tangible or intangible. Based on frequency counts, we assembled a final list of 13 commonly cited example investments for use in the main studies (see Appendix B). Eight of the items represented intangible investments and 5 of the items represented tangible investments. Frequency count analyses by gender found no significant differences, indicating that the same sorts of investments were salient to both males and females.

**Study 1: Confirmatory Factor Analyses**

Before testing our study hypotheses, we conducted confirmatory factor analyses to confirm the hypothesized factors underlying items we derived to assess specific types of investments. More specifically, we wished to test whether separate latent constructs representing past intangible, planned intangible, past tangible, and planned tangible best fit data derived from individuals involved in romantic relationships. To do so, we assessed the validity of a four-factor versus various possible alternative models. To demonstrate the consistency of our findings across samples, we collected data from two different populations, including a sample of undergraduates involved in romantic relationships and a sample of married and/or cohabiting adults.

**Method**

**Participants in Sample 1.** Three hundred eighty-four undergraduate students (228 women and 156 men) who were involved in heterosexual, nonmarital romantic relationships of at least 2 weeks in duration participated in a questionnaire study titled “Thoughts About Your Close Relationship.” The mean age of the sample was 19.63 (SD = 2.59). Most participants (84%) were White (4% were Asian, 4% Black, 6% Hispanic, 1% Mixed, and 1% Other). Average length of relationship involvement was 16.34 months (SD = 13.91; Median = 13).
Participants in Sample 2. Two hundred thirty-four heterosexual adults (160 women and 74 men) who were involved in a marital or cohabiting relationship participated in a questionnaire study titled “Thoughts About Your Close Relationship.” The mean age of the sample was 30.64 (SD = 11.80). Most participants (90%) were White (3% were Asian, 2% Black, 4% Hispanic, and 1% Other). Average length of relationship involvement was 112.31 months (SD = 123.98; Median = 57).

Procedure. All participants volunteered for the study, completed the measures described below, and were thanked and debriefed. Sample 1 participants completed the measures in partial fulfillment of a course requirement and were run in groups ranging from 5 to 30 people. Approximately half of the Sample 2 participants completed the measures in partial fulfillment of a course requirement; due to course time constraints, the other half were paid $5.00 and were given a copy of the survey (along with a self-addressed return envelope) to complete and return via postal mail.

Measures. All study participants provided responses regarding the 13 specific investments derived from the preliminary study. Participants assessed the degree to which they (a) had already invested each of these 13 specific resources into their relationship (past investments) and (b) planned to invest each of these 13 specific resources into their relationship (planned investments). These 26 items were presented as statements (e.g., “My partner and I have many major shared possessions”), and participants indicated how much they agreed with each statement. The response scale for all of these items ranged from 0 (do not agree at all) to 8 (agree completely).

In addition, participants completed the Investment Model Scale (Rusbult et al., 1998) measure of investments. This measure includes five global questions assessing an individual’s level of investments in general (e.g., “I have put a great deal into our relationship that I would lose if the relationship were to end”; α = .84). All items use a 9-point response scale ranging from 0 (do not agree at all) to 8 (agree completely). Note that these general investment items all appear to tap intangible resources and are oriented toward the past. Thus, they were included in our confirmatory analyses to determine if they load on a past intangible factor when assessed along with the new specific items.

Results and Discussion

To determine whether the 31 investment items (13 specific past investments, 13 specific planned investments, 5 general past investments; from Rusbult et al., 1998) load on four separate factors as well as to compare the model fit of a four-factor versus alternative less-than-four-factor solution, we conducted confirmatory factor analyses using LISREL 8.54 with data from the two samples.

Sample 1. We began by testing a four-factor model that constrained items thought to be assessing each of our four hypothesized latent factors to those factors: Past Intangible, Planned Intangible, Past Tangible, and Planned Tangible. Specific items within each factor can be found in Appendix B. All 13 items hypothesized to load on a Past Intangible factor loaded significantly on that factor (with t values ranging from 10.36 to 17.62, all paths significant at the .01 level). All 8 items thought to load on a Planned Intangible factor loaded significantly on that factor (with t values ranging from 16.12 to 23.36, all paths significant at the .01 level). All 5 items thought to load on a Past Tangible factor loaded significantly on that factor (with t values ranging from 4.21 to 5.37, all paths significant at the .01 level). Finally, all 5 items thought to load on a Planned Tangible factor loaded significantly on that factor (with t values ranging from 18.62 to 24.62, all paths significant at the .01 level). See Table 1 for factor loadings.

With respect to overall model fit, after allowing for the correlation of measurement error for items within a given hypothesized factor, results of structural equation analyses indicated that a four-factor model provided a reasonable fit to the data: $\chi^2(387) = 668.16$, Goodness-of-Fit Index (GFI) = .90, with a desirable chi-square to degrees-of-freedom ratio of 1.72 (Loehlin, 1992).

The overall fit of this four-factor model was then compared to a one-factor model by computing the difference between the chi-square and degrees-of-freedom associated with each model (Loehlin, 1992). The one-factor model assumed that all items are being driven by a single latent construct. To support the four-factor model, the loss in degrees of freedom corresponding to the extra paths in that model would have to be offset by a significant reduction of chi-square value from the one-factor model. If not, acceptance of the four-factor model would amount to sacrificing theoretical and statistical parsimony for the sake of a negligible change in chi-square (Loehlin, 1992; see also MacCallum, Wegener, Uchino, & Fabrigar, 1993). A chi-square difference test indicated that the four-factor model provided a better fit to the data than did the one-factor model—one-factor model: $\chi^2(393) = 2,936.44$, GFI = .67; chi-square to degree-of-freedom ratio = 7.47; $\chi^2$ difference between four-factor and one-factor model (6) = 2,549.44, $p < .01$.

Next, the overall fit of this four-factor model was then compared to two different theoretically plausible two-factor models, again by computing the difference between the chi-square and degrees of freedom associated with each model (Loehlin, 1992). The first two-factor model assumed that the investment items were being
driven by two latent constructs defined along temporal lines: past and planned (collapsing across our hypothesized material distinction). A chi-square difference test indicated that the four-factor model provided a better fit to the data than did this two-factor temporal model—two-factor temporal model:

\[\chi^2(392) = 1,456.45, \text{ GFI} = .80; \chi^2 \text{ difference between four-factor and two-factor temporal model} (5) = 788.29, p < .01. \]

A second two-factor model assumed the investment items were driven by two latent constructs defined along material lines: tangible and intangible (collapsing across our hypothesized temporal distinction). A chi-square difference test indicated that the four-factor model provided a better fit to the data than did this two-factor material model—two-factor material model:

\[\chi^2(392) = 2,300.56, \text{ GFI} = .72; \chi^2 \text{ difference between four-factor and two-factor material model} (5) = 1,632.40, p < .01. \]

**Sample 2.** The models tested above were then rerun using the data obtained from the second sample of married and/or cohabitating participants. Results paralleled those obtained for Sample 1. All 13 items hypothesized to load on a *Past Intangible* factor loaded significantly on that factor (with \(t\) values ranging from 4.00 to 15.11, all paths significant at the .01 level). All 8 items thought to load on a *Planned Intangible* factor loaded significantly on that factor (with \(t\) values ranging from 9.89 to 16.00, all paths significant at the .01 level). All 5 items thought to load on a *Past Tangible* factor

### Table 1: Factor Loadings From Confirmatory Analyses of Investment Items (Four-Factor Models, Study 1)

<table>
<thead>
<tr>
<th>Investment Item</th>
<th>Factor 1 Past Intangible</th>
<th>Factor 2 Planned Intangible</th>
<th>Factor 3 Past Tangible</th>
<th>Factor 4 Planned Tangible</th>
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<tbody>
<tr>
<td></td>
<td>S1/S2</td>
<td>S1/S2</td>
<td>S1/S2</td>
<td>S1/S2</td>
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<tr>
<td>Rusbult, Martz, &amp; Agnew (1998) global items:</td>
<td></td>
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<tr>
<td>“I feel very involved . . .”</td>
<td>1.56/1.17</td>
<td></td>
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<tr>
<td>“. . . I have invested . . .”</td>
<td>1.54/1.18</td>
<td></td>
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<tr>
<td>“I have put a great deal . . .”</td>
<td>1.41/0.90</td>
<td></td>
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<tr>
<td>“Many aspects of my life . . .”</td>
<td>1.37/1.20</td>
<td></td>
<td></td>
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<tr>
<td>“My relations . . . with family . . .”</td>
<td>1.13/0.74</td>
<td></td>
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<tr>
<td>Specific past investments:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Time</td>
<td>1.19/0.77</td>
<td></td>
<td></td>
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<tr>
<td>Effort</td>
<td>1.21/1.03</td>
<td></td>
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<tr>
<td>Emotional ties</td>
<td>1.03/0.73</td>
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<tr>
<td>Self-disclosures</td>
<td>0.95/0.83</td>
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<tr>
<td>Sacrifices</td>
<td>1.10/0.92</td>
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<td>Intellectual life</td>
<td>1.24/1.20</td>
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<tr>
<td>Sense of identity</td>
<td>1.28/1.01</td>
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<tr>
<td>Leisure activities</td>
<td>0.54/1.00</td>
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<tr>
<td>Financial investments</td>
<td></td>
<td></td>
<td></td>
<td>1.58/2.92</td>
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<tr>
<td>Major shared possessions</td>
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<td></td>
<td>2.93/1.17</td>
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<tr>
<td>Bank account</td>
<td></td>
<td></td>
<td>0.52/2.51</td>
<td></td>
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<tr>
<td>Loans/debts</td>
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<td>0.50/2.70</td>
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<tr>
<td>Pet</td>
<td></td>
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<td>0.94/1.07</td>
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<tr>
<td>Specific planned investments:</td>
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<tr>
<td>Time</td>
<td>1.41/1.20</td>
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<tr>
<td>Effort</td>
<td>1.40/1.14</td>
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<tr>
<td>Emotional ties</td>
<td>1.35/1.04</td>
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<td>Self-disclosures</td>
<td>1.33/1.31</td>
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<td>Sacrifices</td>
<td>1.46/1.36</td>
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<td>Intellectual life</td>
<td>1.53/1.35</td>
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<tr>
<td>Sense of identity</td>
<td>1.69/1.19</td>
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<tr>
<td>Leisure activities</td>
<td>0.97/1.02</td>
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<tr>
<td>Financial investments</td>
<td></td>
<td></td>
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<td>2.68/1.58</td>
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<tr>
<td>Major shared possessions</td>
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<td>2.04/1.30</td>
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<tr>
<td>Bank account</td>
<td></td>
<td></td>
<td>2.68/1.51</td>
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<td>Loans/debts</td>
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<td>2.65/1.53</td>
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<td>Pet</td>
<td></td>
<td></td>
<td>2.31/1.14</td>
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**NOTE:** S1 = Sample 1 (unmarried), S2 = Sample 2 (married/cohabiting). See text for model fit statistics. Factor loadings are unstandardized LISREL estimates. All loadings \(p < .01. \)
loaded significantly on that factor (with $t$ values ranging from 5.08 to 13.58, all paths significant at the .01 level). Finally, all 5 items thought to load on a Planned Tangible factor loaded significantly on that factor (with $t$ values ranging from 8.12 to 17.57, all paths significant at the .01 level). See Table 1 for factor loadings.

As for overall model fit, results indicated that a four-factor model provided a satisfactory fit to the data: $\chi^2(387) = 726.93$, GFI = .88, with a desirable chi-square to degrees-of-freedom ratio of 1.87 (Loehlin, 1992). The overall fit of this four-factor model was then compared to plausible alternatives. A chi-square difference test indicated that the four-factor model provided a better fit to the data than did a one-factor model—one-factor model: $\chi^2(393) = 1,779.10$, GFI = .66; chi-square to degree-of-freedom ratio = 4.52; $\chi^2$ difference between four-factor and one-factor model (6) = 1,052.17, $p < .01$. Moreover, a chi-square difference test indicated that the four-factor model provided a better fit to the data than did a two-factor temporal model—two-factor temporal model: $\chi^2(392) = 1,108.71$, GFI = .76; chi-square to degree-of-freedom ratio = 2.82; $\chi^2$ difference between four-factor and two-factor temporal model (5) = 381.78, $p < .01$ or a two-factor material model—two-factor material model: $\chi^2(392) = 1,577.09$, GFI = .69; chi-square to degree-of-freedom ratio = 4.02, $\chi^2$ difference between four-factor and two-factor material model (5) = 850.16, $p < .01$.

In summary, Study 1 results confirm the factor structure of items used to assess investments in romantic relationships. LISREL analyses, using data obtained from individuals involved in nonmarital (Sample 1) and marital/cohabitating relationships (Sample 2), support the conclusion that the 31 investment items measure four separate factors, which we have labeled Past Intangible, Planned Intangible, Past Tangible, and Planned Tangible. Furthermore, model comparisons indicate the superiority of a four-factor versus various alternative factor structures.

**STUDY 2: CROSS-SECTIONAL TEST OF HYPOTHESES**

Study 2 provides a cross-sectional test of Hypotheses 1 and 2, using the investment items validated in Study 1.

**Method**

**Participants.** Participants were 173 students (112 women, 61 men) at a midsized western university who participated in partial fulfillment of the requirements for an introductory psychology course. All participants were required to be in heterosexual romantic relationships at the time of their participation. Participants had a mean age of 23.7 years ($SD = 7.22$) and were mostly White (87% White, 6% Hispanic, 4% Asian, 2% Black, 1% unspecified). Mean relationship duration was 45.77 months ($SD = 65.76; Median = 23$). Fifty-three percent of participants indicated they were “dating exclusively,” 8% described their relationship as “casual,” and 38% were engaged or married.

**Measures**

**Investment Model Scale.** All participants completed the Investment Model Scale (Rusbult et al., 1998). This scale includes four parts: (a) five global questions assessing the individual’s satisfaction with his or her relationship (e.g., “My relationship is close to ideal”; $\alpha = .94$); (b) five global questions assessing the individual’s perceived level of alternatives to the present relationship (e.g., “The people other than my partner with whom I might become involved are very appealing”; $\alpha = .87$); (c) five global questions assessing the individual’s level of investments in general (e.g., “I have put a great deal into our relationship that I would lose if the relationship were to end”; $\alpha = .78$); and (d) seven global questions assessing the individual’s commitment to his or her current relationship (e.g., “I want our relationship to last forever”; $\alpha = .93$). All items use a 9-point response scale ranging from 0 (do not agree at all) to 8 (agree completely).

**Past and planned investments measure.** Participants also completed the items derived from the preliminary study and confirmed in Study 1 assessing the degree to which they (a) had already invested each of 13 specific resources into their relationship and (b) planned to invest each of these 13 specific resources into their relationship. The 26 investments were presented as statements (e.g., “My partner and I have many major shared possessions”), and participants indicated how much they agreed with each statement. The response scale for all of these items ranged from 0 (do not agree at all) to 8 (agree completely).

Past and planned tangible investment measures were composed of eight items each (with alphas of .90 and .95, respectively). Past and planned tangible investment measures were composed of five items each (with alphas of .89 and .94, respectively). Correlations between the Rusbult et al. (1998) items measuring global investments and between the four new types of investments were also computed. These correlations ranged from .47 (between the global items and planned tangible investments) to .70 (between the global items and past intangible investments). It is logical that the highest correlation between types of investment would occur between the Rusbult et al. items and the past intangible items because these items all load on the same factor (see Table 1).
All individuals were given the survey, then debriefed and thanked for their participation.

Results and Discussion

The first hypothesis predicted that although tangible and intangible investments would each be significantly associated with commitment, when tested simultaneously, intangible investments would account for variation in commitment above and beyond tangible investments. The second hypothesis predicted that although past and planned investments would each be significantly associated with commitment, when tested simultaneously, planned investments would account for variation in commitment above and beyond past intangible investments. These hypotheses were addressed in the same set of analyses.

Table 2 displays the correlations between all four types of investment with commitment. As can be seen in the first column of Table 2 and consistent with Hypotheses 1 and 2, all four types of investments are significantly associated with commitment in bivariate analyses. Using Cohen and Cohen’s (1983) method to determine the significance of the difference between dependent correlations, we tested the relative strength of association between the four types of investments and commitment level. Past intangible, planned intangible, and planned tangible investments did not significantly differ from each other in their respective associations with commitment. In contrast, past tangible investments were a significantly weaker predictor of commitment than each of the other types (with  \( t \) values ranging from 5.70 to 10.84, all \( p < .01 \)). Consistent with this finding, multiple regression analyses predicting commitment simultaneously from all four types of investment revealed that three of the four types of investment remain significant predictors (see the top half of Table 3). More specifically, past intangible, planned intangible, and planned tangible investments were all significant predictors.

Thus, consistent with Hypothesis 1, both forms of intangible investment (past and planned) were significant predictors of commitment, above and beyond past tangible investments. However, planned tangible investments also remained significant. Therefore, Hypothesis 1 was not completely supported. It was, however, supported in a manner consistent with Hypothesis 2: Both forms of planned investment (tangible and intangible) were significant predictors of commitment, above and beyond past tangible investments but not above and beyond past intangible investments. In short, planned investments of any type proved to be particularly robust predictors of concurrent level of relationship commitment, with intangible past investments also proving to be a strong predictor. Past tangible investments were found to be relatively weak predictors of commitment and only in bivariate analyses.

Table 2: Correlation of Each Investment Type With Time 1 Commitment (Studies 2 and 3)

<table>
<thead>
<tr>
<th>Investment Type</th>
<th>Study 2 (r(173))</th>
<th>Study 3 (r(324))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past Tangible</td>
<td>.36**</td>
<td>.23**</td>
</tr>
<tr>
<td>Past Intangible</td>
<td>.69**</td>
<td>.69**</td>
</tr>
<tr>
<td>Planned Tangible</td>
<td>.71**</td>
<td>.72**</td>
</tr>
<tr>
<td>Planned Intangible</td>
<td>.79**</td>
<td>.73**</td>
</tr>
</tbody>
</table>

** \( p < .001 \).

Table 3: Longitudinal Test of Hypotheses

To test Hypotheses 3 and 4, we designed and conducted a longitudinal study with two periods of data collection, approximately 8 months apart. We also collected the requisite data to retest the first two hypotheses.

Method

Participants. Participants at Time 1 were 324 undergraduates (136 males, 188 females) at a large midwestern university who participated in partial fulfillment of the requirements for an introductory psychology course. All participants were required to be in heterosexual romantic relationships at the time of their participation. At Time 1, participants had a mean age of 19.25 years (SD = 1.09) and were mostly 1st- and 2nd-year students (57% freshmen, 28% sophomores, 12% juniors, 3% seniors). Participants were also mostly White (88% White, 5% Black, 4% Asian, 2% Hispanic, 1% unspecified). Mean relationship duration at Time 1 was 16.94 months (SD = 15.85; Median = 12). Eighty-two percent of participants indicated they were “dating steadily,” 12% described their relationship as “casual,” and 6% were engaged or married.

Two hundred fifty-three of the Time 1 participants were successfully contacted at Time 2 approximately 8 months later (representing 78% of Time 1 participants). Of these participants, 98 were male and 155 were female, consistent with Time 1 sex composition. At Time 2, 66% of participants (\( n = 166 \)) indicated that they were still involved with their Time 1 partner, whereas 34% (\( n = 87 \)) indicated that they were no longer in their Time 1 relationship. For some analyses
reported below, the degrees of freedom are slightly lower than indicated by these sample sizes due to missing data.

For the subsample of participants who participated at Time 2 ($n = 253$), the mean level of Time 1 commitment was 6.54 ($SD = 1.60$). For those who did not participate at Time 2 ($n = 72$), the mean level of Time 1 commitment was 6.41 ($SD = 1.68$). Similar nonsignificant mean differences were found in comparisons of all Investment Model variables (see below for descriptions of these variables). Thus, Time 2 participants did not evidence meaningfully different levels of Time 1 relationship state versus those who only participated at Time 1.

Procedure. At Time 1, participants received a questionnaire packet with several sections. First, all participants read a short explanation of the longitudinal nature of the study and were asked for permission to be contacted at a later date and to provide either telephone or e-mail contact information. Next, participants provided standard demographic information. Participants then completed several questionnaires in counterbalanced order, each of which is described below. No order effects were found.

At Time 2, participants were contacted by either telephone ($n = 160$) or electronic mail ($n = 93$) to provide responses to follow-up measures. No differences by mode of contact were detected. Up to eight attempts were made to contact each participant at Time 2. Mean duration between Time 1 and Time 2 was 30.56 weeks ($SD = 3.06$), with a range from 24 to 38 weeks. Note that the study involved college undergraduates and that Time 1 and Time 2 were in different academic years; thus, the period of time between study sessions included 3 months of summer vacation. As a reminder, participants were provided with the first name of their Time 1 partner when they were contacted regarding participation at Time 2.

<table>
<thead>
<tr>
<th>Model</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$p&lt; $</th>
<th>$R^2$</th>
<th>$F$</th>
<th>df</th>
<th>$p&lt; $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past Tangible Investments</td>
<td>.019</td>
<td>0.36</td>
<td>.72</td>
<td>.688</td>
<td>92.61</td>
<td>4, 168</td>
<td>.001</td>
</tr>
<tr>
<td>Past Intangible Investments</td>
<td>.197</td>
<td>2.90</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned Tangible Investments</td>
<td>.258</td>
<td>3.61</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned Intangible Investments</td>
<td>.456</td>
<td>5.83</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past Tangible Investments</td>
<td>-.020</td>
<td>-0.58</td>
<td>.56</td>
<td>.661</td>
<td>155.78</td>
<td>4, 319</td>
<td>.001</td>
</tr>
<tr>
<td>Past Intangible Investments</td>
<td>.293</td>
<td>6.46</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned Tangible Investments</td>
<td>.314</td>
<td>6.37</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned Intangible Investments</td>
<td>.324</td>
<td>6.64</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Measures

Investment Model Scale. All participants completed the Investment Model Scale (Rusbult et al., 1998). All four subscales exhibited high internal consistency: Satisfaction Level $\alpha = .92$, Quality of Alternatives $\alpha = .86$, Investments in General $\alpha = .84$, and Commitment Level $\alpha = .87$. All items use a 9-point response scale ranging from 0 (do not agree at all) to 8 (agree completely).

Past and planned investments measure. Participants also completed items that assessed the degree to which they (a) had already invested each of 13 specific resources into their relationship and (b) planned to invest each of these 13 specific resources into their relationship. The 26 investments were presented as statements (e.g., “My partner and I have many major shared possessions”), and participants indicated how much they agreed with each statement. The response scale for all of these items ranged from 0 (do not agree at all) to 8 (agree completely).

Based on alpha analyses, final composite measures were created for hypothesis testing. Past and planned intangible investment measures were composed of eight items each (with alphas of .90 and .95, respectively). Past and planned tangible investments were composed of five items each (with alphas of .74 and .97, respectively).

Follow-up questions. At Time 2, participants indicated whether they were still dating the person with whom they had a relationship at Time 1. Eighty-seven participants stated that they were no longer in the Time 1 relationship. One hundred sixty-six participants stated that they were still together with their Time 1 partner.

Participants who were no longer involved with their Time 1 partner were asked to state the likelihood that they would get back together with their Time 1 partner by choosing a probability between 0% (definitely will not get back together) and 100% (definitely will get...
back together). The median estimated likelihood of getting back together was 20% (SD = 27.68). Based on this median, two groups were formed to allow a comparison of participants who perceived that they were relatively more (chance of reuniting is 20% or greater; n = 40; Mean = 49.02) versus relatively less (chance of reuniting is less than 20% chance; n = 41; Mean = 3.07) likely to get back together. These groups were significantly different from each other, p < .01.

Participants who were no longer involved in a relationship with their Time 1 partners were also asked if they were in a new dating relationship. Thirty-four participants reported that they were involved in a relationship with a new partner by Time 2, and 50 indicated that they were currently single. All individuals were then debriefed and thanked for their participation.

Results and Discussion

Testing Hypotheses 1 and 2. Tables 2 and 3 present bivariate associations and multiple regression analyses relevant to retesting the first two hypotheses. Consistent with the findings obtained in Study 2, planned investments of any type and intangible past investments were the strongest predictors of commitment level. Once again, past tangible investments failed to account for variance in commitment level when assessed along with the other types of commitment (see bottom half of Table 3).

Testing Hypotheses 3 and 4. Hypothesis 3 proposed that higher levels of planned investments in a relationship would be associated with decreased likelihood of relationship dissolution. Using Time 2 follow-up fate as a criterion (2 level: still together versus not together), a simple regression test established that level of planned tangible investments at Time 1 was a significant predictor of relationship stability at Time 2 (standardized beta = .25, p < .01). Similar results were found for planned intangible investments (standardized beta = .26, p < .01). Mean differences between those who reported they were still together versus those who reported they had broken up are displayed in Table 4. As can be seen, mean levels of planned tangible investments at Time 1 were 5.84 (SD = 2.54) for participants still in the same relationship at Time 2 versus 4.42 (SD = 2.88) for participants who were no longer in their relationship at Time 2, F(1, 251) = 16.25, p < .01. Similarly, mean levels of planned intangible investments at Time 1 were 7.28 (SD = 1.06) for participants still in the same relationship at Time 2 versus 6.54 (SD = 1.66) for participants who were no longer in their relationship at Time 2, F(1, 251) = 18.47, p < .01. Taken together, these findings support Hypothesis 3.

Next, we tested Hypothesis 4, which held that among those for whom the relationship ended by Time 2, higher levels of planned investments at Time 1 would be associated with (a) greater perceived likelihood of reuniting with one’s partner in the future and with (b) lower probability of being involved with a new partner by Time 2. Table 5 displays the mean levels of Time 1 investments for each of these outcomes for the two groups. With respect to perceived likelihood of reuniting with Time 1 partner, ANOVAs revealed that mean levels of Time 1 investment were significantly different (and in the predicted direction) for both types of planned investments between the high-chance and low-chance groups: F(1, 84) = 4.94, p < .05, for planned tangible and F(1, 84) = 7.97, p < .01, for planned intangible. With respect to being involved with a new partner by Time 2, ANOVAs revealed that new relationship status was predicted by Time 1 levels of both types of planned investments: F(1, 82) = 8.20, p < .01, for planned tangible and F(1, 82) = 3.72, p = .05, for planned intangible.

Ancillary analyses: Testing extant measure of global investments. We were also interested in examining the associations between a global measure of investments used in a great deal of past research (from the Investment Model Scale; Rusbult et al., 1998) and the three longitudinal outcome variables (still together at Time 2, perceived likelihood of reuniting if not still together, and new relationship status at Time 2). As previously noted, Rusbult et al.’s (1998) global investment scale taps past intangible investments (see Table 1). Correlational analyses showed that the global investment items were only significantly associated with one of the three outcome variables—if the partners were still together at Time 2 (r = .25, p < .01). For participants who had broken up by Time 2, the association between the global items and perceived chance of reuniting with that partner was not significant (r = .15, p = .16), and the association between global investments and new relationship status was also not significant (r = −.05,

### Table 4: Mean Levels of Time 1 Investment Types by Time 2 Relationship Fate (Study 3)

<table>
<thead>
<tr>
<th>Time 2 Relationship Fate</th>
<th>Time 1 Investment Type</th>
<th>M (n = 87)</th>
<th>SD</th>
<th>M (n = 166)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissolved</td>
<td>Past Tangible</td>
<td>0.59a</td>
<td>1.21</td>
<td>0.93a</td>
<td>1.49</td>
</tr>
<tr>
<td></td>
<td>Past Intangible</td>
<td>5.86a</td>
<td>1.59</td>
<td>6.72b</td>
<td>1.12</td>
</tr>
<tr>
<td></td>
<td>Planned Tangible</td>
<td>4.42a</td>
<td>2.88</td>
<td>5.84b</td>
<td>2.54</td>
</tr>
<tr>
<td></td>
<td>Planned Intangible</td>
<td>6.54a</td>
<td>1.66</td>
<td>7.28b</td>
<td>1.06</td>
</tr>
</tbody>
</table>

NOTE: Means for investment types can range from 0 to 8. Across rows, means that share superscripts are not significantly different from each other at p < .05.
TABLE 5: Mean Levels of Time 1 Investment Types by Time 2 Chance of Reuniting and New Relationship Status (Study 3)

<table>
<thead>
<tr>
<th>Investment Type</th>
<th>Chance of Reuniting</th>
<th>New Relationship Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20% or more (n = 45)</td>
<td>20% (n = 41)</td>
</tr>
<tr>
<td>Past Tangible</td>
<td>M SD</td>
<td>M SD</td>
</tr>
<tr>
<td>0.53*</td>
<td>0.87</td>
<td>0.69*</td>
</tr>
<tr>
<td>Past Intangible</td>
<td>6.20*</td>
<td>5.51*</td>
</tr>
<tr>
<td>Planned Tangible</td>
<td>5.07*</td>
<td>3.71*</td>
</tr>
<tr>
<td>Planned Intangible</td>
<td>7.03*</td>
<td>6.06*</td>
</tr>
</tbody>
</table>

NOTE: Means for investment types can range from 0 to 8. For each outcome variable, across rows, means that share superscripts are not significantly different from each other at p < .05.

p = .65). These nonsignificant correlations provide further evidence for the theoretical and empirical utility of dividing investments into types.

Given that global investments were found to be a significant predictor of relationship fate at Time 2, we also tested whether planned tangible, planned intangible, and past tangible investments each provide significantly greater prediction of fate than do global (i.e., a measure of past intangible) investments alone. To do so, we calculated a series of nested regression models with Time 2 relationship fate as a criterion variable and sets of the investment measures as predictor variables.

To begin, in step one, we calculated a model including only global investments as predictor of relationship fate at Time 2. This model accounted for 6.07% of the variance in fate (standardized beta = .25, p < .01). Then, in step two, we added planned intangible investments to the model. This model accounted for 8.50% of the variance in relationship fate, a significant improvement in model fit (change in $R^2 p = .01$; Pedahazur, 1982). Next, we calculated an alternative step-two model including global investments and planned tangible investments. This model accounted for 7.92% of the variance in fate and also yielded a significant improvement over a model including only global investments (change in $R^2 p = .03$). Finally, we calculated an alternative step-two model including global investments and past tangible investments. This model was not a significant improvement over a model including only global investments (change in $R^2 p = .37$).

Taken together, these results provide empirical support for the contention that the specific investment types offered here account for variance in important relationship outcomes above and beyond that accounted for by past approaches to the measurement and conceptualization of investments.

GENERAL DISCUSSION

Despite the popularity of the Investment Model (Rusbult, 1980a, 1983) and its application in many types of relational contexts (e.g., romantic relationships, friendships, and work-related involvements; Le & Agnew, 2003), no research to date has investigated different types of investments and how these types may be differentially associated with relationship state and fate. The current work provides empirical evidence that the specification of investment type is important. Across studies, all hypotheses were at least partially supported, suggesting that investments may be usefully conceptualized as falling into tangible/intangible and past/planned categories.

The preliminary study resulted in a list of specific investments common in romantic relationships and supported the idea that a tangible/intangible distinction is clear and understandable to individuals involved in relationships. Study 1 provided strong evidence for the hypothesized four-factor structure, with both college students involved in nonmarital relationships (Sample 1) and older individuals involved in married and/or cohabiting relationships (Sample 2). Studies 2 and 3 showed that commitment is related in predicted ways to different types of investments. Of note, despite the fact that planned investments have not yet occurred, they were found to be associated with vital relationship outcomes, such as dissolution and perceptions of the likelihood of reuniting with a past partner.

Several analyses highlighted the predictive power of intangible investments over tangible investments (see tests of Hypothesis 1 in Studies 2 and 3). What are the mechanisms by which intangible investments affect a relationship? Although the data from the current studies are correlational, it is not unreasonable to discuss a few possibilities. One possibility is that intangible investments are more open to subjective construal than are tangible investments. For example, the perceived amount of emotional involvement or sacrifices one has sunk into a relationship might be influenced by the current state of the relationship (e.g., if the relationship is going well at the current time, reflections on past efforts might be inflated; McFarland & Ross, 1987) or by such phenomena as positive illusions about the relationship (Murray & Holmes, 1993). In contrast, tangible resources, such as financial investments or pets, are concrete and may be less emotionally porous and less vulnerable to subjective interpretation. In our increasingly materialistic world, it is refreshing to obtain evidence that it is not the “stuff” of life that is perceived as keeping people in relationships but rather those investments that are more ethereal.

In addition to the importance of distinguishing between tangible and intangible investments, several
analyses also examined the theoretical and empirical importance of the timing of investments. Tests of Hypothesis 1 showed that higher commitment to a particular relationship is associated with a greater number of plans regarding future possibilities with that relationship partner. This finding is concordant with research that has shown high relationship commitment levels associated with a long-term orientation regarding a relationship (Arriaga & Agnew, 2001; Berscheid & Reis, 1998). Consistent with this finding, tests of Hypothesis 3 demonstrated that individuals with more plans for investing future resources seem to be less willing to dissolve their relationship, which would result in the loss of both their past and planned investments.

The importance of planned investments is also highlighted by the results obtained for Hypothesis 4. With respect to relationship involvement, breakup aftermath is decidedly worse for individuals if they had greater plans to invest in the future. Not only do these individuals perceive a greater likelihood of getting back together with their estranged partner, they are also less likely to be dating a new partner months later. We speculate that these individuals could, at least on some level, be refusing to give up these plans for the future, hoping to achieve them by reuniting with their partner. One provocative topic for future research is to determine to what extent relationship plans are conceived as linked to a given partner as opposed to seen as achievable with any partner. There are likely plans that one partner forms in connection with a specific other partner, plans that a given individual might not have formed otherwise. The extent to which such plans would remain of interest as well as the extent to which they can be “transported” for achievement with another partner remain provocative areas for inquiry.

An important pragmatic contribution of the planned investment construct is that it allows one to examine the concept and role of investments in brand new relationships. The traditional conception of investments (including only those investments already sunk) is limited in its application to newer relationships because partners have had less time and opportunity to accrue any investments. However, planned investments can begin to accrue at any point in a relationship, even at partners’ first meeting. The current research demonstrates that even in relatively new relationships, planned investments vary in their intensity and elaboration. Planned investments predict relationship commitment, chance of dissolution, and how an individual is affected by breakup—more lost plans are associated with an individual seeming to cling to the past, perceiving a higher likelihood of reuniting with a past partner and of remaining single (perhaps until a desired reunion occurs). Moreover, we found that new relationship status at Time 2 was predicted only by levels of planned investments at Time 1 and not by past investments at Time 1 (see right side of Table 5). Thus, traditional methods of measuring investments would not have provided this predictive insight. In sum, consideration of both the materiality and the timing of investments offers predictive power and theoretical insight that were not possible with a global view of investments.

In the past, the Investment Model has been applied to nonromantic relationships, such as friendships (Rusbult, 1980b), and to job commitment (Farrell & Rusbult, 1981). Are the investment types offered here relevant within these contexts? Although the specific investment examples would have to be altered, we see these types as relevant in these contexts as well. For example, from an industrial/organizational perspective, consider an individual who is trying to decide whether to remain in or leave a job. She will reflect on everything she would lose upon leaving, including intangible past investments (e.g., efforts to understand specific company policies), tangible past investments (e.g., money invested in a nonportable retirement plan), and future investments (e.g., desired promotions and attendant rise in status).

With respect to potential practical applications of the present findings, the particularly strong findings obtained for future plans may present an avenue for improving relationship commitment. The current results suggest that couple members who wish to enhance their relationship commitment may want to purposely delineate future plans with respect to their partnership. Recent experimental work featuring the manipulation of different types of investments demonstrates the causal influence of forming relationship plans on nonmarital romantic relationship commitment (Agnew, Lehmiller, & Goodfriend, 2008).

Although this research provided general support for our hypotheses across several samples, one limitation is that it only addressed investment patterns in traditional, heterosexual relationships. Future work might investigate whether these results replicate in other types of relationships (e.g., homosexual relationships). Although we suspect that the processes are similar, it is possible that nontraditional relationships have different opportunities or restrictions that affect both past and planned investments. For example, perhaps homosexual relationships are less likely to feature tangible investments due to fears of provoking social disapproval. The same might be true of relationships involving people of different races or of very different ages (Lehmiller & Agnew, 2006, 2008). Future research could explore such potential limits of generalizability.

While we have focused on material and temporal distinctions in investments, we do not mean to imply that these are the only investment categories worthy of
consideration. The construct of investments could be broken down in other interesting ways. For instance, there might be a difference between those resources people are consciously aware of investing and those they are not (e.g., sacrifices vs. an established routine which slowly becomes automatic over time). In addition to awareness of past investments, it is possible that possessing conscious versus nonconscious plans for the future may affect how an individual goes about attempting to achieve those plans or how controlled those attempts are (cf. Kawada, Oettingen, Gollwitzer, & Bargh, 2004). Moreover, although we have emphasized the distinction between past and future investments, a distinction can also be made between past, completed investments and those that are ongoing or chronic (such as recurring house payments or regular physical intimacy between partners). Future work might fruitfully examine possible distinctions between such ongoing, dynamic investments and those that no longer occur.

Granting that investment types could be described in many ways, the types presented in the current work are basic distinctions that have intuitive, practical, and theoretical appeal. The present work adds to the robust research base supporting the importance of the investment construct and suggests refinements that promise to increase our understanding of pivotal relationship processes.

APPENDIX A
DEFINITIONS OF INVESTMENTS PROVIDED TO PRELIMINARY STUDY PARTICIPANTS

In psychological research about romantic relationships, “investments” refer to resources that are attached to a relationship which would decline in value or be lost if the relationship were to end.

Tangible investments are all the material resources that are attached to a relationship that would decline in value or be lost if the relationship were to end. Tangible investments can be physically touched. One example of a tangible investment is a house.

Intangible investments are all the resources that do not physically exist that are attached to a relationship that would decline in value or be lost if the relationship were to end. Intangible investments cannot be physically touched. One example of an intangible investment is love.

APPENDIX B
MEASURE OF PAST INVESTMENTS

The following questions refer to your relationship with your current romantic partner. Read each statement carefully before giving your response.

0 1 2 3 4 5 6 7 8
Do Not Agree
Agree
Agree
at All
Somewhat
Completely

1. _____ I have invested a great deal of time in our relationship [time].
2. _____ I have many emotional ties to my current partner [emotional ties].
3. _____ I have told my partner many private things about myself (I disclose secrets to him/her) [self-disclosures].
4. _____ My partner and I have many major shared possessions [major shared possessions].
5. _____ My partner and I have made at least one joint financial investment (stocks, etc.) [financial investments].
6. _____ My sense of personal identity (who I am) is linked to my partner and our relationship [sense of identity].
7. _____ My partner and I own a pet which we consider “ours” (not exclusively mine nor my partner’s) [pet].
8. _____ My partner and I currently have at least one joint bank account (checking account, etc.) [bank account].
9. _____ My partner and I have an intellectual life together that would be difficult to replace [intellectual life].
10. _____ I have put a lot of effort into our relationship [effort].
11. _____ My partner and I have taken out at least one joint loan or debt (credit cards, etc.) [loans/debts].
12. _____ I have made many sacrifices and compromises for the benefit of my partner [sacrifices].
13. _____ My partner and I enjoy sharing leisure activities together [leisure activities].

NOTE: The bracketed label following each item corresponds with the labeling used in the tables and Results section and was not presented to participants. To measure planned investments, items were put in future tense, referenced the current relationship, and began with the phrase “In the future...” (e.g., “In the future, I will invest a great deal of time into my current relationship”). Items 1, 2, 3, 6, 9, 10, 12, and 13 are intangible; Items 4, 5, 7, 8, and 11 are tangible.
REFERENCES


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